UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,885	02/05/2004	Robert S. Cooper	114.0004	5349

27997	7590	08/25/2005

PRIEST & GOLDSTEIN PLLC
5015 SOUTHPARK DRIVE
SUITE 230
DURHAM, NC 27713-7736

EXAMINER
GAUTHIER, GERALD

ART UNIT	PAPER NUMBER
2645	

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 February 2004*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 August 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date *7/11/05*.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

Specification

1.   The disclosure is objected to because of the following informalities: Page 3, line 8

is missing the patent serial number. Correction is required.

Claim Objections

2.   **Claim(s) 16** is objected to because of the following informalities: line 5 "and"

should be "an". Correction is required.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   **Claim(s) 15** is rejected under 35 U.S.C. 102(e) as being anticipated by Ng et al.

(US 6,529,585 B2).

Regarding **claim(s) 15**, Ng discloses a method of voice dialing (FIG. 1 and

column 1, lines 7-9), comprising the steps of:

receiving a voice input from a user indicating a party the user wishes to call (FIG.

1 and column 3, lines 1-9) [The voice label processor 110 receives the calling party' s

voice input wishing to establish a communication with a called party]; and

identifying potential directory entries matching the voice input, taking into account

the estimated likelihood that each entry will be called by a user (FIG. 1 and column 3,

lines 9-18) [The voice label processor 110 extracts the feature pattern from the voice

signals to identify the voice label using the voice label database 140 and sends the

identified voice label to the destination identifier determination device for a match in the

user profile database, thereby taking into account the estimated likelihood that each

entry will be called by a user].

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

> 1. Determining the scope and contents of the prior art.
> 2. Ascertaining the differences between the prior art and the claims at issue.
> 3. Resolving the level of ordinary skill in the pertinent art.
> 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. **Claim(s) 1-6 and 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Furman et al. (US 6,049,594) in view of Steinbiss et al. (US 6,823,307 B1).

Regarding **claim(s) 1**, Furman discloses a voice dialing system (FIG. 5 and column 1, lines 9-11) comprising:

a directory (20 on FIG. 2) including entries for telephone numbers that may be called by a user (FIG. 2 and column 5, lines 35-45) [The reverse telephone directory 20 includes the names and the telephone numbers that me be called by the customer];

a called party cache (15 on FIG. 2) including entries a user is considered likely to call (FIG. 2 and column 5, lines 32-35) [The customer billing record database 15 includes the telephone numbers most frequently dialed by the customer]; and

a voice dialing module (35 on FIG. 5) for receiving a voice input from a user and identifying a directory entry matching the voice input (FIG. 5 and column 6, line 63 to column 7, line 10).

Furman discloses a user profile database but fails to disclose the voice dialing module being operative to assign an increased likelihood of matching to a directory entry appearing in the called party cache.

However, Steinbiss, in the same field of endeavor, teaches the voice dialing module being operative to assign an increased likelihood of matching to a directory entry appearing in the called party cache (column 6, lines 11-17) [The system for voice dialing allows frequently used telephone numbers stored in the cache in association with a voice command to be dialed].

Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Furman using the word level matching system as taught by Steinbiss.

This modification of the invention enables the system to provide a voice dialing module being operative to assign an increased likelihood of matching to a directory entry appearing in the called party cache so that the system would allow better recognition of local telephone numbers starting with the same digit sequence (Steinbiss: column 3, lines 34-36).

Regarding **claim(s) 2**, Furman in combination with Steinbiss as applied to **claim(s) 1** above differs from **claim(s) 2**.

Steinbiss, furthermore, teaches a voice dialing system, wherein entries within the called party cache are associated with indicia indicating a probability that a contact represented by an entry will be called by the user (FIG. 1 and column 5, lines 55-67).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Furman using the word level matching system as taught by Steinbiss.

This modification of the invention enables the system to provide entries within the called party cache are associated with indicia indicating a probability so that the system would allow better recognition of local telephone numbers starting with the same digit sequence (Steinbiss: column 3, lines 34-36).

Regarding **claim(s) 3**, Furman discloses a voice dialing system, wherein the directory may include multiple entries for a party, each entry identifying a contact location at which the party may be called (FIG. 6 and column 8, lines 48-57).

Regarding **claim(s) 4**, Furman in combination with Steinbiss as applied to **claim(s) 3** above differs from **claim(s) 4**.

Steinbiss, furthermore, teaches a voice dialing system, wherein one or more entries associated with a party may appear in the cache, the appearance and relative position in the cache of an entry associated with a party indicating a probability that the

user will call the party at the location indicated by the entry (FIG. 1 and column 6, lines 37-50).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Furman using the word level matching system as taught by Steinbiss.

This modification of the invention enables the system to provide one or more entries associated with a party may appear in the cache so that the system would allow better recognition of local telephone numbers starting with the same digit sequence (Steinbiss: column 3, lines 34-36).

Regarding **claim(s) 5**, Furman disclose a voice dialing system, wherein the call probabilities for entries within the called party cache are based on a past history of calls by the user (FIG. 3 and column 5, lines 22-34).

Regarding **claim(s) 6**, Furman in combination with Steinbiss as applied to **claim(s) 3** above differs from **claim(s) 4**.

Steinbiss, furthermore, teaches a voice dialing system, wherein the call probabilities for entries within the called party cache are based on knowledge of the user as a caller (FIG. 1 and column 8, lines 27-40).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Furman using the word level matching system as taught by Steinbiss.

This modification of the invention enables the system to provide call probabilities for entries within the called party cache are based on knowledge of the user as a caller so that the system would allow better recognition of local telephone numbers starting with the same digit sequence (Steinbiss: column 3, lines 34-36).

Regarding **claim(s) 8**, Furman discloses a voice dialing system, wherein the voice dialing module is operative to create a list of voice recognition results representing possible matches to the voice input, the list of recognition results being ordered by confidence score, the voice dialing module being further operative to reorder the list if one or more entries in the list appears in the called party cache (FIG. 3 and column 7, lines 1-36).

9.   **Claim(s) 7** is rejected under 35 U.S.C. 103(a) as being unpatentable over Furman in view of Steinbiss as applied to **claim(s) 6** above, and further in view of Gadd et al. (US 2005/0033582 A1).

Regarding **claim(s) 7**, Furman in combination with Steinbiss as applied to **claim(s) 6** above differs from **claim(s) 7,** in that it fails to disclose the knowledge of the user as a caller includes knowledge of an organization in which the user is employed.

However, Gadd, in the same field of endeavor, teaches a voice dialing system, wherein the knowledge of the user as a caller includes knowledge of an organization in which the user is employed (FIG. 1 and paragraph 0182).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Furman in combination with Steinbiss using the spoken language interface repository as taught by Gadd.

This modification of the invention enables the system to provide the knowledge of the user as a caller includes knowledge of an organization in which the user is employed so that the system would resolve errors by interacting with the user (Gadd: paragraph 0007).

10.   **Claim(s) 9-11 and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Furman in view of Steinbiss as applied to **claim(s) 8** above, and further in view of Levin et al. (US 2003/0149566 A1).

Regarding **claim(s) 9**, Furman in combination with Steinbiss as applied to **claim(s) 8** above differs from **claim(s) 9,** in that it fails to disclose the voice dialing module reorders the list by moving entries in the list that also appear in the cache to a higher position in the list.

However, Levin, in the same field of endeavor, teaches a voice dialing system, wherein the voice dialing module reorders the list by moving entries in the list that also appear in the cache to a higher position in the list (FIG. 1 and paragraph 0030).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Furman in combination with Steinbiss using the recognizer as taught by Levin.

This modification of the invention enables the system to provide the voice dialing module reorders the list by moving entries in the list that also appear in the cache to a higher position in the list so that the system would separate the task of speech recognition from an index search task (Levin: paragraph 0014).

Regarding **claim(s) 10**, Furman in combination with Steinbiss and Levin as applied to **claim(s) 9** above differs from **claim(s) 10**.

Levin, furthermore, teaches a voice dialing system, wherein the voice dialing module reorders the list by adding an increment to the confidence score of all entries in the list that reappear in the cache and reordering the list on the basis of the changed confidence score (FIG. 1 and paragraph 0035).

Regarding **claim(s) 11**, Furman discloses a voice dialing system, wherein an initial set of entries to the called party cache for a user is made when a user is added as a possible user of the system (FIG. 6 and column 9, lines 6-17).

Regarding **claim(s) 14**, Furman discloses a voice dialing system, wherein if the called party cache is full and an addition is to be made, an entry is deleted from the called party cache before making the addition, the deleted entry being the entry having the lowest estimated likelihood that it will be called by the user (column 13, lines 19-32).

11.   **Claim(s) 12 and 13** are rejected under 35 U.S.C. 103(a) as being unpatentable

over Furman in view of Steinbiss in further view of Levin as applied to **claim(s) 11**

above, and further in view of Stubley (US 2005/0152511 A1).

Regarding **claim(s) 12**, Furman in combination with Steinbiss and Levin as

applied to **claim(s) 11** above differs from **claim(s) 12,** in that it fails to disclose the

called party cache is reordered when an entry in the called party cache is determined to

match a voice input provided by a user in voice dialing.

However, Stubley, in the same field of endeavor, teaches a voice dialing system,

wherein the called party cache is reordered when an entry in the called party cache is

determined to match a voice input provided by a user in voice dialing, the reordering

being performed so as to take into account the estimated probability that the entry will

be called by the user in the future (FIG. 4 and paragraph 0104).

Therefore, it would have been obvious to one of the ordinary skill in the art at the

time the invention was made to modify the invention of Furman in combination with

Steinbiss and Levin using the call-directing unit as taught by Stubley.

This modification of the invention enables the system to provide the called party

cache is reordered when an entry in the called party cache is determined to match a

voice input provided by a user in voice dialing so that the system would efficiently direct

an incoming call to a correct directory entry (Stubley: paragraph 0005).

Regarding **claim(s) 13**, Furman discloses a voice dialing system, wherein an entry is added to the called party cache if a directory entry matches a voice input by the user and the entry does not appear in the called party cache (FIG. 6 and column 9, lines 26-33).

12.   **Claim(s) 16** is rejected under 35 U.S.C. 103(a) as being unpatentable over Ng in view of Steinbiss.

Regarding **claim(s) 16**, Ng discloses a method of voice dialing, wherein the step of identifying potential directory entries includes constructing a matching entry list of entries (voice label database 140 on FIG. 1) potentially matching the voice input (column 4, lines 36-46).

Ng discloses a user profile database but fails to disclose comparing the matching entry list to a called party cache including entries estimated as likely to be called by the user.

However, Steinbiss, in the same field of endeavor, teaches comparing the matching entry list to a called party cache including entries estimated as likely to be called by the user and reordering the matching entry list if one or more entries in the list matches an entry in the called party cache (column 5, lines 61-66 and (column 6, lines 11-17) [The cache store the recognized telephone number resulted in a telephone

connection being established comparing the entries to the entries in the cache

frequently used telephone numbers and ordering the called party cache].

Therefore, it would have been obvious to one of the ordinary skill in the art at the

time the invention was made to modify the invention of Ng using the word level

matching system as taught by Steinbiss.

This modification of the invention enables the system to compare the matching

entry list to a called party cache including entries estimated as likely to be called by the

user so that the system would allow better recognition of local telephone numbers

starting with the same digit sequence (Steinbiss: column 3, lines 34-36).

13.   **Claim(s) 17-19** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Ng in view of Steinbiss as applied to **claim(s) 16** above, and further in view of Furman.

Regarding **claim(s) 17**, Ng in combination with Steinbiss as applied to **claim(s)**

16 above differs from **claim(s) 17**, in that it fails to disclose sequentially presenting the

entries in the matching entry list to the user for confirmation and dialing an entry upon

receiving confirmation from the user.

However, Furman , in the same field of endeavor, teaches a method of voice

dialing, followed by a step of sequentially presenting the entries in the matching entry

list to the user for confirmation and dialing an entry upon receiving confirmation from the

user (FIG. 6 and column 9, lines 6-17).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Ng in combination with Steinbiss using the database processor as taught by Furman.

This modification of the invention enables the system to sequentially presenting the entries in the matching entry list to the user for confirmation and dialing an entry upon receiving confirmation from the user so that the user would initiate a connection to such address over the network (Furman: column 2, lines 15-17).

Regarding **claim(s) 18**, Ng discloses a method of voice dialing, wherein the step of sequentially presenting the entries to the user for confirmation is followed by a step of determining if the matching entry appears in the cache and adding the matching entry to the cache if it does not appear in the cache (FIG. 1 and column 7, lines 62-66).

Regarding **claim(s) 19**, Ng in combination with Steinbiss and Furman as applied to **claim(s) 18** above differs from **claim(s) 19.**
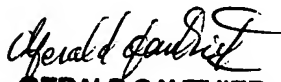
Steinbiss, furthermore, teaches a method of voice dialing, wherein the step of sequentially presenting the entries to the user for confirmation is followed by a step of reordering the cache if the matching entry does appears in the cache (column 5, lines 61-66 and (column 6, lines 11-17).

Conclusion

14.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gerald Gauthier whose telephone number is (571) 272-7539. The examiner can normally be reached on 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on (571) 272-7547. The fax phone number for the organization where this application or proceeding is assigned is 571-2738300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GERALD GAUTHIER
PATENT EXAMINER
g.g.
August 8, 2005

Gerald Gauthier
Examiner
Art Unit 2645